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AMERICAN AGRICULTURE TODAY.

The Nation's farmers in 1948 set another production record, the sixth new record in the past nine years. Crop yields per acre were 50 percent larger than the averages of 20 years ago. This tremendous production enabled the Nation to continue food consumption at a high level, while exporting during the 1947-48 marketing year almost five times the prewar average.

But in 1948, for the first time in ten years, farm net income declined, and it became apparent that the peak of agricultural prosperity had past.

Throughout the war and postwar periods, American agriculture has demonstrated a remarkable flexibility. Thus, during the war, demand for milk, meat, eggs, and oil crops soared to amazing heights -- and farmers produced these "fighting" foods in unprecedented quantities. After the war, when prevention of starvation abroad became the pressing need, major emphasis quickly shifted to grains. Again American farmers did the job.

Now the scene is shifting again and American agriculture faces the problem of adjusting to more normal conditions.

PRODUCTION

Total output of crops in 1948 far exceeded that of any other year. The growing season was so favorable that, with the improved farm practices of recent years, new record yields per acre were set for several crops. Quality of crops, as well as quantity, was also outstanding. Corn led the procession of record-breaking crops with an outturn of 3,651 million bushels of excellent quality, exceeding the previous record of 1946 by about 400 million bushels. Wheat production was exceeded only in 1947.

Production of meat was 33 percent greater than in the prewar years, but was 8 percent smaller than in 1947. Egg production was about the same as in 1947 and 52 percent above prewar. Milk production was 3 percent below 1947 but 11 percent above prewar.

The following table shows production of selected commodities, comparing last year with the 5-year prewar average and with 20 years ago.

Commodity	1928	1935-39 average	1948
Wheat (bu.)	914,373,000	758,629,000	1,288,406,000
Corn, all (bu.)	2,665,516,000	2,315,554,000	3,650,548,000
Tobacco (lbs.)	1,373,214,000	1,460,021,000	1,981,730,000
Cotton (bales)	14,477,000	13,149,000	14,868,000
Milk (million lbs.)	95,843	103,624	115,511
Hogs (1,000 lbs.)	16,188,885	13,521,197	18,789,312
Beef (1,000 lbs.)	12,326,763	14,211,642	18,376,045
Chickens (1,000 lbs.)	2,404,162	2,257,597	3,416,645
Eggs (millions)	38,659	36,381	55,168

Total agricultural production for sale and home consumption, consisting of food and nonfood commodities, rose rapidly from 1935 until 1944 and has about maintained the high level achieved in the latter part of the war.

The following table shows index numbers of food production alone (using 1935-39 as 100) from 1937 through 1949.

1937 -- 101	1944 -- 140
1938 -- 103	1945 -- 139
1939 -- 106	1946 -- 140
1940 -- 111	1947 -- 140
1941 -- 115	1948 -- 134
1942 -- 126	1949 -- 137 (preliminary)
1943 -- 134	

CIVILIAN CONSUMPTION

Food production was large enough to enable the United States to export more than 19 million tons of food (almost five times the prewar average) during the 1947-48 marketing year. At the same time civilians consumed per capita 14 percent more food than the 1935-39 average. Despite some food production decreases in 1948, per capita food consumption in 1949 is running within one or two percent of a year ago. The following table shows how food consumption in 1948 compared with the prewar average for major foods:

U. S. Per Capita Consumption of Major Foods (primary distribution weights)

Commodity	1935-39 average (lbs.)	1948 (lbs.)	1948 as percentage of 1935-39 avg. (percent)
Meats, carcass weight	126.2	146.4	116.0
Eggs	37.3	48.2	129.2
Milk, total, whole milk equivalent	801	750	93.6
Fats and oils (incl. butter), fat content	44.7	42.2	94.4
Citrus fruits, fresh	48.9	53.8	110.0
Vegetables, fresh	235	256	108.9
Wheat flour	153	135	88.2

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FARM PRICES

The index for all farm prices in 1948 was 168 percent above the 1935-39 average, 3 percent above 1947, and 322 percent above the depression low of 1932. The average of all farm prices in 1948 was 15 percent above parity.

Average Farm Prices of Major Commodities

<u>Commodity</u>	<u>1932</u>	<u>1939</u>	<u>1948</u>
	(Dollars)		
Hogs (per cwt.)	3.34	6.23	23.10
Cattle (per cwt.)	4.25	7.14	22.20
Calves (per cwt.)	4.95	8.40	24.40
Corn (per bu.)	.292	.542	1.29
Milk (per cwt.)	1.24	1.59	4.66
Eggs (per doz.)	.14	.174	.472
Chickens (per lb.)	.118	.135	.306
Broilers (per lb.)	--	.17	.359
Wheat (per bu.)	.375	.686	1.99
Cotton (per lb.)	.065	.091	.301
Tobacco (per lb.)	.105	.154	.480

FARM INCOME

Farm operators net income declined in 1948 for the first time in ten years. Continued high production and demand raised gross farm income to a record high in 1948 but production expenses increased more rapidly. The recovery of farm income from the low point of 1932 to the peak of 1947 brought a degree of general agricultural prosperity hitherto unknown in this or any other nation. At the 1948 level, farm operators net income from agriculture remains almost 3 times as great as that of 1941.

Net Income of Farm Operators

1932 -- \$1,832,000,000	1941 -- \$ 6,406,000,000
1935 -- 4,484,000,000	1944 -- 12,251,000,000
1938 -- 4,327,000,000	1947 -- 17,831,000,000
	1948 -- 17,428,000,000 *

*preliminary

THE BALANCE SHEET

In January 1949 the assets of agriculture were valued at more than 130 billion dollars, an increase of 8 billions (about 7 percent) over the preceding January. Farmers held more than 22 billion dollars in liquid assets, consisting of currency and deposits, savings bonds, and investments in cooperatives.

Farmers reduced farm mortgage debt from 6.6 billions in January 1940 to a low of 4.7 billions in 1946. The farm mortgage debt has since risen to 5.1 billion on January 1, 1949. Farmers, wisely, have not duplicated the pattern of post-World-War-One when mortgage debt rose from 5.8 billion dollars in January 1917 to a peak of 10.8 billions in 1923. Despite the recent increase, farm mortgage debt is still 23 percent less than it was in 1940.

Total agricultural debt as of January 1, 1949, amounted to about 11 billion dollars, or 9 percent of total agricultural assets.

FARMERS AID IN WORLD RECOVERY

The continuing high volume of agricultural production in the United States has been an important element in world efforts toward postwar reconstruction and rehabilitation. In the year ending June 30, 1948, the United States exported over 19.3 million tons of food -- more than was ever before shipped from one nation in a period of 12 months.

The commodities exported in comparison with certain other years are shown in the following table:

Summary of food exports from the United States
by major groups, average 1935-39 and fiscal
years 1945-46, 1946-47, and 1947-48

Period	Wheat	Other	Rice	Fats	Meat	Dairy	Other	Total
	and	grains	(milled)	and	(carcass	products	foods	food
	wheat	(grain	(milled)	and	(carcass	(product	foods	food
	products	equiv.)	(milled)	Oils	equiv.)	weight)	weight)	exports
	(grain	equiv.)						
	equiv.)							
	1000	1000	1000	1000	1000	1000	1000	1000
	long	long	long	long	long	long	long	long
	tons	tons	tons	tons	tons	tons	tons	tons
1935-39	1,366	1,335	83	87	55	17	1,280	4,223
1945-46	10,504	1,306	352	310	614	816	3,596	17,498
1946-47	10,629	4,166	393	220	181	514	3,057	19,160
1947-48	13,018	2,232	407	251	68	460	2,911	19,347
	:	:	:	:	:	:	:	:

Of the 19.3 million tons of food exported from the U. S. in the year ending June 30, 1948, 12.8 million tons went to Europe, 3.2 million tons to the Far East, 1.8 million to Latin America, and 1.5 million to other parts of the world.

U. S. Furnishing Half of World Grain Exports

In prewar 1934-38 the amount of grain moving in international trade averaged 28,387,800 long tons. Of this 8.4 percent came from the United States. In the year ending June 30, 1948, total world grain exports amounted to 34,612,000 long tons. But 43.6 percent came from the U. S.

Nonfood Exports

For a century and a half the United States has been the world's largest exporter of cotton and until the 1930's normally shipped over half its crop abroad. Difficulties then developed which reduced the export trade; and, despite a downward

adjustment of the American acreage, large surplus stocks accumulated in the United States.

During World War II, foreign markets for American cotton were largely cut off. At the same time, however, domestic consumption was greatly expanded and this, together with a succession of small crops, prevented a serious wartime increase of the surplus. After the war's conclusion the pentup demand for cotton goods and continued small world production made it possible to distribute the surplus completely.

Within the last two years, however, the tide has again turned. Consumption is now easing while production is increasing and stocks apparently have begun again to accumulate.

After the start of the war, U. S. tobacco exports also dropped sharply. By 1946, however, they had more than recovered -- exports of 663 million pounds of unmanufactured tobacco in that year being the second highest on record. Since 1946 shipments have fallen again because of lack of dollar exchange abroad -- particularly in England, which took one-half of our prewar tobacco exports. In 1947 the U. S. exported 507 million pounds which, though about one-fourth less than in 1946, still exceeded prewar. In 1948 the U. S. exports of tobacco dropped further to 427 million pounds, or about 2 percent below the 1934-38 average.

PROGRAMS

The national farm programs have been of particular importance to American farmers in their efforts to produce for victory and for peace.

Price Supports

Price support legislation enacted early in the war expanded the protection which had already been given farmers during the Thirties. This wartime legislation applied to the "basic" commodities -- corn, cotton, wheat, rice, tobacco, and peanuts for nuts -- and also to the so-called Steagall commodities, for which wartime expansion was officially requested -- soybeans, dry beans, dry peas, flaxseed for oil, potatoes, sweetpotatoes, American-Egyptian cotton, hogs, eggs, chickens, turkeys, milk, and butterfat. For all other commodities, Congress directed that a fair parity relationship be maintained to the extent possible with funds available.

The expanded price support legislation at the 90-percent-of-parity level was extended for at least two years after the end of the war so as to prevent a repetition of the crash of 1920-21 which followed World War One. Prices of farm products in 1920 reached 235 percent of the 1910-14 average. A year later they had dropped to less than half that level -- to 115 percent of the 1910-14 average. The national average price of cotton fell from 38.5 cents a pound to 9.5 cents, wheat from \$2.56 a bushel to 93 cents, corn from \$1.85 a bushel to 42 cents -- all within little more than a year.

The Agricultural Act of 1948 extended wartime price-support legislation, with certain modifications, through the calendar year 1949 with respect to Steagall commodities, and to June 30, 1950, with respect to basic commodities.

Loans and purchases for price support made during the fiscal year 1947-48, the latest year for which complete information is available, totaled \$633,082,616.

Because losses on potatoes, wool, eggs, dried fruit, sugar, and several other commodities more than offset gains on other commodities, a net loss of \$125,382,594 was sustained during the year by the Department of Agriculture.

Conservation of Natural Resources

Soil conservation is encouraged and carried on in three ways: Through education (under the Federal-State Agricultural Extension Service), through technical assistance and service to farmers (under the Soil Conservation Service), and through incentive payments to farmers who use recommended conservation practices (under the Agricultural Conservation Program of the Production and Marketing Administration).

The Soil Conservation Service works through farmer-organized and farmer-managed soil conservation districts formed under State laws. Since the first soil conservation districts were voted in 1937, approximately 2,100 have been organized in the 48 States and the four Territories. They include about 69 percent of the country's farm land and more than three-fourths of all the farms and ranches in the country.

When farmers apply to their districts for such assistance, technicians from the Soil Conservation Service work out detailed conservation plans with these farmers, mapping out, acre by acre, the cropping, pasture, woodland, or other use to which land can safely be put. Technical assistance then is given in putting the planned conservation measures onto the land. These may include terraces, drainage or irrigation ditches, contour strips, ponds, or other structures or operations which require a high degree of technical skill or heavy machinery.

To January 1, 1949, conservation farm plans prepared in districts alone totaled nearly 700,000. These plans covered more than 187 million acres of private farm and ranch land, of which 93 million acres had been treated with the planned conservation practices. Many additional millions of acres had been planned and treated under other programs with which the Soil Conservation Service has assisted, and detailed conservation surveys had been made on 293 million acres.

Incentive payments to farmers under the ACP program, administered by the Production and Marketing Administration, not only recognize the tremendous stake which the Nation has in conserving its soil, but they also make possible immediate application of certain conservation practices on a Nation-wide basis. This results in application of such conservation practices much faster and over a wider area than would be accomplished by education and technical assistance alone. Many farmers, especially tenant farmers, feel that they cannot afford to carry the full cost of these conservation practices.

The ACP program is administered locally by elected farmer-committeemen, still known in many areas as AAA committeemen.

The 1947 program, the latest for which complete figures are available, was carried out on 2,729,794 farms, including 299 million acres, or 63.5 percent of the Nation's cropland. Among the important practices carried out in 1947 were:

<u>Practice</u>	<u>Extent of Application</u>
Ground limestone for conservation uses	14,590,407 acres treated
Superphosphate for conservation uses	20,784,070 acres treated
Field strip cropping for erosion control	6,304,640 acres treated
Artificial seeding permanent pastures and range	5,238,232 acres
Green manure and cover crops	18,617,621 acres
Contour farming intertilled crops for erosion control	6,192,275 acres
Protecting summer fallow for erosion control	12,143,405 acres
Construction of terraces for erosion control	1,677,533 acres
Open ditch drainage	5,008,994 acres
Leveling land for irrigation to conserve water	784,545 acres
Earthen dams for livestock water	68,930 (structures)

In addition to the above conservation practices there are a number which, while not as extensively used nationally, are very important in particular States or areas, such as: establishment of permanent cover on severely eroded areas, irrigation system remodeling to prevent erosion and conserve water, contour farming close grown crops, maintaining and improving stands of trees and deferred grazing on range land.

The Government paid less than 50 percent of the out-of-pocket cost of these practices. The farmers paid the rest and furnished the labor.

Through education, technical assistance, and incentive payments much progress in conservation has been achieved on American farms since 1935. The Nation has slowed, but not yet reversed, the tide of loss of soil resources. There is much to be done.

Although one-third of the land of the United States is in forests, supplies of timber are being drained today at a rate one and a half times the rate of growth. Through cooperation between the Federal Government, the States, and private owners, forest growth sufficient to meet the Nation's needs can be built up. But in timber resources as in soil resources, the balance between conservation and demand has not yet been achieved.

Farm Credit

In recent years, farmers have strengthened their cooperative credit system, which is supervised by the Farm Credit Administration.

The Federal Land Banks, established in 1917 to extend long-term credit to farmers, operate on cooperative principles. The Government capital furnished to help operate the 12 Federal Land Banks has been gradually retired and in 1947 the last of it was repaid. The Banks are now completely farmer-owned.

Federal Land Banks at the end of 1948 had a capital of \$55,917,766, with outstanding loans of \$856,572,824 to 302,055 farmers. The 13 Banks for Cooperatives, also supervised by the Farm Credit Administration, last year made 1,253 loans to farm cooperatives totaling \$494,678,097.

Historically one of the most difficult problems American agriculture has faced has been the problem of obtaining adequate short-term credit at reasonable rates of interest. The Production Credit Associations were started in 1933 to serve this purpose. They, too, are based on cooperative principles and are supervised by the Farm Credit Administration. In 1948 more than 500 associations in the Nation made 274,397 loans to farmers totaling \$924,314,682. Like the older Land Banks, the associations are making rapid strides in retiring the Government capital which was used to start them.

The 12 Federal intermediate credit banks, operating since 1933, assist through loans and discount operations such financing institutions as production credit associations, agricultural credit corporations, livestock loan companies, banks for cooperatives, and commercial banks. In 1948 the loans and discounts totaled 1-1/2 billion dollars.

Farmers Home Administration -- Aid to Small Farmers

More than 1,900,000 family-type farmers, unable to obtain credit through normal channels, have been assisted by Government programs to become more successful tenant or farm owners. These programs now carried on by the Farmers Home Administration were, prior to November 1946, administered by the Farm Security Administration and the Emergency Crop and Feed Loan Division of the Farm Credit Administration.

From 1935 through December 31, 1948, farm operating loans totaling \$1,258,843,769 were made to 1,256,555 farmers for the purchase of seed, feed, livestock, equipment, and other farm and home needs. Similar loans made by the Emergency Crop and Feed Division totaled \$575,934,578. Credit to purchase, improve, develop or enlarge farms, totaling \$355,862,069 has been supplied 61,470 farmers. Since October 1947, loans totaling \$4,700,876 have been made by private lenders to 660 families to purchase, improve, develop or enlarge farms insured by the Farmers Home Administration. In addition to the total of \$2,190,640,416 for individual farmers' farm operating and real estate purchase needs, loans have been made to groups of farmers in a total amount of \$31,935,531 for similar purposes.

In 17 Western States funds are provided to install needed water facilities. These loans total \$9,232,780.

On the farm purchase loans, as of March 31, 1948, approximately 18 percent had repaid their loans in full out of farm income, years ahead of schedule, and current borrowers had paid \$21,672,808 more than was due on their loans.

From July 1, 1948, through December 31, 1948, the agency made 40,827 operating loans totaling \$44,220,435; direct and insured farm purchase loans to 1,523 families totaling \$11,598,935; and 492 water facilities loans amounting to \$822,064. In this period written applications for loans totaled about 154,869. In addition, 3,416 persons made oral inquiries but did not file written requests when they learned funds were exhausted.

Veterans now make up a large portion of the new borrowers of FHA, 79,825 having been assisted with farm operating, water facilities, and farm purchase loans since July 1944.

Rural Electrification

Electric power on farms played a significant part in the Nation's record production. In 1935, when the Rural Electrification Administration was established, only about one farm in ten (10.9 percent) had central station electric service. Today nearly seven farms out of ten (68.6 percent as of June 30, 1948) have central station electric service. REA loans, bearing 2 percent interest, are made on a self-liquidating basis and are amortized over a maximum period of 35 years.

Up to January 1, 1949, loans approved by REA had been used to build 753,431 miles of lines and other facilities to carry electricity to 2,515,364 farms and other rural consumers, including thousands of nonfarm users, schools, churches, service establishments, and small rural industries.

Crop Insurance

The period of greatest risk on the food and fiber production line from farmer to consumer is the period when the crop is growing under the open sky and is subject to many hazards beyond the farmer's control. Federal Crop Insurance protects the farmer's crop investment against loss due to unavoidable causes such as weather, insect infestations, and plant diseases.

Major progress has been made since 1939 toward the development of this crop investment protection program on a sound basis under which premiums paid by farmers will, over a period of years, balance with losses paid to farmers. It is a business proposition providing the farmer protection every year at a premium rate in line with the actual county loss experience.

Federal Crop Insurance was available in 1949 to farmers in 200 wheat, 56 cotton, 50 corn, 50 flax, 35 tobacco, 9 dry edible bean, and 7 multiple crop counties. Congress has authorized the Federal Crop Insurance Corporation to expand this protection to new counties each year for the next four years at the rate of 100 wheat, 28 cotton, 25 flax, 25 corn, 17 tobacco, 10 bean, and 25 multiple crop counties after 1950 when 50 multiple counties are authorized.

Research

Much of the present productivity of agriculture stems from the application of results of scientific research in many fields. An hour of labor on the farm today produces a third more milk than in 1920, three-fourths again as much corn, and more than two and a half times as much wheat. Compared with 1920, our farmers are now getting a third more output from an average production input of labor, land, machinery, power, etc. But these are only a few of the many benefits agricultural research has brought the American farmer, the Nation, and even the world. Some of the accomplishments of the scientific research of the Department follow:

Application of research findings in the field of animal diseases has virtually wiped out hog cholera, cattle tick fever, and bovine tuberculosis in the United States.

More than a million calves were vaccinated in 1948 in the campaign to eradicate brucellosis.

Cross-breeding experiments with cattle and poultry promise to show the way to increased production of dairy and poultry products.

The use of radioactive isotopes in research with plants is producing results that will lead to more efficient and economical use of fertilizer.

New varieties of crop plants superior in yield or resistance to diseases are released to farmers every year.

Disease-resistant varieties of sugarcane resulting from plant-breeding research saved the sugar industry of the southern United States from threatened extinction in the 1920's.

A number of effective new insecticides have been developed and made available since the introduction of DDT. They include benzene hexachloride, chlordane, toxaphene, and parathion. Recommendations for the special uses of these compounds have been made by the Department.

A recent development in insecticide research is the synthesis of the insect-killing principle of pyrethrum, a natural insecticide imported in large quantities, after 17 years' work in the laboratory.

A simple test for detecting the extent of weevil infestation in stored grain was devised in 1948. Samples of grain soaked in a special red dye and then washed show red dots where weevils have laid eggs.

Results of research to find new uses and better markets for farm products include the method by which the production of penicillin was stepped up to make its healing powers available to everyone at a reasonable price; the discovery of the benefits of rutin in high blood pressure and of buckwheat plants as the best source of the drug; new textile fibers from proteins of corn, milk (casein), peanuts, and chicken feathers; improved freezing and

dehydrating processes for foods; motor fuels from farm wastes; and other developments, many of which have already been adopted by industry and are in commercial production. Such research has the dual purpose of providing wider outlets and uses for agricultural products and new sources of raw materials for industry.

Physical and economic research in the Department of Agriculture has been increased under the provisions of the Research and Marketing Act of 1946, passed unanimously by Congress. The Act purposes to bring research in marketing and utilization up to parity with research in production, and "to assure agriculture a position in research equal to that of industry." Though the first funds made available were for the fiscal year 1948, many projects have already been launched in such fields as transportation, marketing, farm electrification, farm mechanization, utilization of feed, processing, packaging, storage, consumer preferences, human nutrition, new uses, grades and standards, and market news.

School Lunch Placed on Permanent Basis

During the 1948-49 school year, the National School Lunch Program provided warm, nourishing noon-time meals to nearly 7,000,000 children in some 48,000 schools throughout the country.

The School Lunch Program has been in operation in American schools on an expanding scale since 1935. It was placed on a permanent basis on June 4, 1946, when the President signed the National School Lunch Act into law. Under this legislation the safeguarding of the health and well-being of the Nation's children, and the encouragement of greater domestic consumption of nutritious agricultural commodities were declared to be matters of national policy.

Overall direction of the program is vested in the Department of Agriculture. State departments of education have financial and administrative responsibility and authority for the program within the individual States. Thus, the major part of Federal assistance to the program is in the form of cash grants-in-aid to States for reimbursing participating schools. All States have more than met the matching requirements established by the legislation.

In addition, the Department is authorized to use a portion of School Lunch funds for the direct purchase of foods needed to meet specific nutritional requirements. Also, some foods acquired under the Department's price support and surplus removal programs are made available to schools at no charge. These foods are distributed under what is known as the Direct Distribution Program.

Funds appropriated for the operation of the School Lunch Program totaled \$75,000,000 during the past year. Funds applied by States are estimated at in excess of \$200,000,000.

SUMMARY

Today, American agriculture is confronted by unprecedented productivity and declining net income.

Total output of crops in 1948 far exceeded that of any other year.

Although farm operators' net income in 1948 was about 2 percent less than in 1947, farm assets were almost 12 times as great as farm liabilities on January 1, 1949.

In the 12 months that ended June 1948, the U. S. shipped abroad the greatest tonnage of food ever exported from one country in a year's time. Even so, food consumption per capita in the U. S. last year was 14 percent above prewar.

Farm programs in the past have helped agriculture conserve natural resources, provide adequate credit facilities at reasonable rates of interest, assisted small farmers, tenants, and farm laborers up the economic ladder to a better and more secure living, helped bring electrification to approximately seven farms out of ten, spread the immense benefits of research, and helped provide nutritious school lunches for millions of children.

Today American agriculture remains in a sound condition, although farm income is declining. The great problem ahead will be to keep agriculture in good balance with business and industry for the good of our entire economy.

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